In the Claims

The following is a complete listing of the claims and replace all prior claims in the application:

1. (Currently Amended) A method for minimizing the cycle time of a burnish test cycle, comprising:

prior to initialization, positioning a back portion of an air-bearing surface of a slider bearing a MR head to be co-planar with a recording surface;

thereafter executing ~~performing burnish operations~~ burnishing operations on the back portion of the air bearing surface to remove material from the back portion of the air-bearing surface;

monitoring ~~measuring an initial MR~~ resistance ~~for a head~~ measurements of the MR head representing interference between the air-bearing surface of the slider and the recording surface;

determining whether the measured ~~MR~~ resistance of the MR head indicates the head has clearance between the air-bearing surface of the slider and the recording surface; and

~~completing the test cycle when the head is determined to have clearance~~ when clearance between the air-bearing surface of the slider and the recording surface is not detected based upon the monitoring of the resistance measurements of the MR head, lowering a fly-height between the back portion of the air-bearing surface of the MR head and the recording surface and executing burnishing operations on the back portion of the air bearing surface to remove material from the back portion of the air-bearing surface until the monitoring of the resistance measurements of the MR head indicates the air-bearing surface of the slider has clearance above the recording surface.

2. (Currently Amended) The method of claim 1 further comprising:

reducing the fly-height of the head when the measured ~~MR~~ resistance of the MR head indicates the head does not have clearance;

perform a subsequent burnish operation;

measuring the ~~MR~~ resistance of the MR head again; and

returning to determine whether the measured ~~MR~~ resistance of the MR head indicates the MR head has clearance.

3. (Previously Presented) The method of claim 2, wherein the reducing the fly-height of the head further comprises selecting at least one process from the group comprising reducing the pressure within the disclosure, reducing the spindle speed and increasing the pre-load to the head.

4. (Currently Amended) The method of claim 1, wherein the determining whether measured ~~MR~~ resistance of the MR head indicates the head has clearance further comprises comparing the absolute ~~MR~~ resistance of the MR head measurements to a threshold to identify whether the head has clearance.

5. (Currently Amended) The method of claim 1, wherein the determining whether measured ~~MR~~ resistance of the MR head indicates the head has clearance further comprises comparing the ~~MR~~ resistance of the MR head rate of change to a threshold to identify whether the head has clearance.

6. (Currently Amended) A drive controller for minimizing the cycle time of a burnish test cycle, the drive controller comprising:

memory for storing data therein; and

a processor, coupled to the memory, the processor being configured for, prior to initialization, ~~performing burnish operations, measuring an initial MR resistance for a head, determining whether the measured MR resistance indicates the head has clearance and completing the test cycle when the head is determined to have clearance~~. positioning a back portion of an air-bearing surface of a slider bearing a MR head to be co-planar with a recording surface; thereafter for executing burnishing operations on the back portion of the air bearing surface to remove material from the back portion of the air-bearing surface, for monitoring resistance measurements of the MR head representing interference between the air-bearing surface of the slider and the recording surface, for determining whether the measured resistance of the MR head indicates the head has clearance between the air-bearing surface of the slider and the recording surface; and, when clearance between the air-bearing surface of the slider and the recording surface is not detected based upon the monitoring of the resistance measurements of the MR head, for lowering a fly-height between the back portion of the air-bearing surface of the MR head and the recording surface and executing burnishing operations on the back portion of the air bearing surface to remove material from the back portion of the air-bearing surface until the monitoring of the resistance measurements of the MR head indicates the air-bearing surface of the slider has clearance above the recording surface.

7. (Currently Amended) The ~~method~~ drive controller of claim 6, wherein the processor is further configured for reducing the fly-height of the head when the measured ~~MR~~ resistance of the MR head indicates the head does not have clearance, perform a subsequent burnish operation, measuring the ~~MR~~ resistance of the MR head again and returning to determine whether the measured MR resistance indicates the head has clearance.

8. (Currently Amended) The ~~method~~ drive controller of claim 7, wherein the processor reducing the fly-height of the head by selecting at least one process from the group comprising reducing the pressure within the disclosure, reducing the spindle speed and increasing the pre-load to the head.

9. (Currently Amended) The ~~method~~ drive controller of claim 6, wherein the processor determines whether measured MR resistance indicates the head has clearance by comparing the absolute ~~MR~~ resistance of the MR head measurements to a threshold to identify whether the head has clearance.

10. (Currently Amended) The ~~method~~ drive controller of claim 6, wherein the processor determines whether measured ~~MR~~ resistance of the MR head indicates the head has clearance by comparing the MR resistance rate of change to a threshold to identify whether the head has clearance.

11. (Currently Amended) A program storage device readable by a computer, the program storage device tangibly embodying one or more programs of instructions executable by the computer to perform operations for minimizing the cycle time of a burnish cycle, the operations comprising:

prior to initialization, positioning a back portion of an air-bearing surface of a slider bearing a MR head to be co-planar with a recording surface;

thereafter executing ~~performing burnish operations~~ burnishing operations on the back portion of the air bearing surface to remove material from the back portion of the air-bearing surface;

monitoring ~~measuring an initial MR~~ resistance ~~for a head~~ measurements of the MR head representing interference between the air-bearing surface of the slider and the recording surface;

determining whether the measured ~~MR~~ resistance of the MR head indicates the head has clearance between the air-bearing surface of the slider and the recording surface; and

~~completing the test cycle when the head is determined to have clearance~~ when clearance between the air-bearing surface of the slider and the recording surface is not detected based upon the monitoring of the resistance measurements of the MR head, lowering a fly-height between the back portion of the air-bearing surface of the MR head and the recording surface and executing burnishing operations on the back portion of the air bearing surface to remove material from the back portion of the air-bearing surface until the monitoring of the resistance measurements of the MR head indicates the air-bearing surface of the slider has clearance above the recording surface.

12. (Currently Amended) The program storage device of claim 11 further comprising:

performing burnish operations;

measuring an initial ~~MR~~ resistance of the MR head for a head;

determining whether the measured ~~MR~~ resistance of the MR head indicates the head has clearance; and

completing the test cycle when the head is determined to have clearance.

13. (Previously Presented) The program storage device of claim 12, wherein the reducing the fly-height of the head further comprises selecting at least one process from the group comprising reducing the pressure within the disclosure, reducing the spindle speed and increasing the pre-load to the head.

14. (Currently Amended) The program storage device of claim 11, wherein the determining whether measured ~~MR~~ resistance of the MR head indicates the head has clearance further comprises comparing the absolute ~~MR~~ resistance of the MR head measurements to a threshold to identify whether the head has clearance.

15. (Currently Amended) The program storage device of claim 11, wherein the determining whether measured ~~MR~~ resistance of the MR head indicates the head has clearance further comprises comparing the ~~MR~~ resistance of the MR head rate of change to a threshold to identify whether the head has clearance.